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PATENT

Application # 10/666,227

Attorney Docket # 2002P15657US01 (1009-040)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Poerner, Colleen
Application # : 10/666,227
Confirmation # : 8462
Filed : 18 September 2003
Application Title : System and Method for Navigating an HMI
Art Unit # : 2178
Latest Examiner : Termanini, Samir

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.132

Sir:

I, Colleen Guy, a citizen of the United States, whose full post office address is 47 Nottingham Way, Somerset, NJ 08877 declare as follows under penalty of perjury.

Background

1. I hold a bachelors degree in Computer Science from University of Hartford awarded in 2000.
2. I am currently a Software Engineer with Siemens Corporate Research.
3. Since 2001, I have worked continually in the field of automation applications with particular emphasis in industrial computer applications.

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4. During my career, I have been granted zero U.S. patents for my own inventions in the field of industrial computer applications engineering.

Review

5. I have reviewed Application Serial No. 10/666,227 (hereinafter the present application).
6. I know what one of ordinary skill in the art of the present application would have known on the priority date claimed by the present application (23 September 2002).
7. I have reviewed the USPTO Office Action dated 22 August 2007 (hereinafter the "Office Action") regarding Application Serial No. 10/666,227.
8. I have reviewed U.S. Patent Publication 2003/0184580 ("Kodosky").
9. I have reviewed U.S. Patent 5,870,559 ("Leshem").
10. Among the subject matter with which I was familiar prior to 23 September 2002 was subject matter of the type recited in Kodosky.
11. Among the subject matter with which I was familiar prior to 23 September 2002 was subject matter of the type recited in Leshem.

Kodosky Does Not Teach Claimed Subject Matter As Asserted

12. Each of independent claims 1 and 33, from one of which each of claims 2-32 and 35-39 ultimately depends, states, *inter alia*, "via the HMI screen navigation editor, enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes".
13. Independent claim 34 of the present application states, *inter alia*, "an HMI screen navigation editor operatively adapted to: enable a user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes".
14. The Office Action asserts, at Page 4, that the claimed subject matter stated in each of paragraphs 12-13 is taught by Kodosky at paragraphs 1 and 375.
15. One skilled in the art would find the assertions of the Office Action referenced in

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paragraph 14 factually incorrect as of 23 September 2002.

16. One skilled in the art would have noted the definition at paragraph 16 of the present application, which indicates that an "HMI screen node" is defined to be "a miniaturized visual representation of an HMI user screen."
17. One skilled in the art would have noted the definition at paragraph 11 of the present application, which indicates that an "HMI user screen" is defined to be "a visual display of an HMI renderable via a monitor."
18. One skilled in the art would have noted the definition at paragraph 10 of the present application, which indicates that an "HMI" is defined to be "a human machine interface used for monitoring, programming, and/or controlling automation machines and/or processes. An HMI can, for example, interpret communications from a human operator of an industrial plant to an automated machine controller, and vice versa."
19. One skilled in the art would have found that paragraph 1 of Kodosky states, "[t]he present invention relates to the fields of system design and distributed software programming and deployment, and more particularly to a system and method for enabling a user to more easily specify or create distributed systems and/or applications utilizing a configuration diagram. The present invention further relates to techniques for graphically distributing or deploying programs among a plurality of different devices or nodes in a distributed system."
20. One skilled in the art would not have found that paragraph 1 of Kodosky teaches anything regarding "a linked hierarchically organized plurality of HMI screen nodes" since "HMI screen nodes" are "a miniaturized visual representation of an HMI user screen".
21. One skilled in the art would have found that paragraph 375 of Kodosky states, "[a]s described above, the block diagram may automatically be displayed in response to an association performed by the user in step 644. In other words, the user may drag and drop a device icon onto a program icon in the configuration diagram. Where the program icon represents a graphical program, this may cause the block diagram

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corresponding to the program icon to be automatically displayed. The device icon may then automatically appear in the block diagram for further navigation or positioning by the user."

22. One skilled in the art would not have considered a "program icon" as described in paragraph 375 of Kodosky to be an "HMI screen node", which is "a miniaturized visual representation of an HMI user screen".
23. One skilled in the art would not have found that paragraph 375 of Kodosky teaches anything regarding "a linked hierarchically organized plurality of HMI screen nodes" since "HMI screen nodes" are "a miniaturized visual representation of an HMI user screen".
24. The applied portions of the remaining relied-upon references do not overcome at least these deficiencies of Kodosky.
25. Thus, one skilled in the art would not have found that the applied portions of the relied-upon references teach, "via the HMI screen navigation editor, enabling the user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes" as claimed in each of claims 1 and 33.
26. One skilled in the art would not have found that the applied portions of the relied-upon references teach, "an HMI screen navigation editor operatively adapted to: enable a user to create a collection comprising a linked hierarchically organized plurality of HMI screen nodes" as claimed in claim 34.

Kodosky and/or Leshem Do Not Teach Claimed Subject Matter As Asserted

27. Each of independent claims 1 and 33, from one of which each of claims 2-32 and 35-39 ultimately depends, states, *inter alia*, "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child

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- nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node".
28. Independent claim 34 of the present application states, *inter alia*, "an HMI screen navigation editor operatively adapted to: responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjust a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node".
29. The Office Action asserts, at Page 4, that Kodosky at paragraph 185 teaches "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node ('...The 'drag and drop' method may comprise the user selecting the first program icon with a pointing device (e.g., a mouse) and dragging the first program icon on the display to be on top of or proximate to the first device icon....,' para. [0185]) automatically adjusting a nodes position ('...The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection....,' para. [0016])."
30. One skilled in the art would find the statement of the Office Action recited in paragraph 29 factually incorrect as of 23 September 2002.
31. One skilled in the art would not have equated either a "program icon" or a "device icon" as taught by Kodosky to be an "HMI screen node" in view of the definitions indicated in paragraphs 16-18.
32. In addition, one skilled in the art would have found that paragraph 16 of Kodosky states, "[i]n one embodiment, the configuration diagram may at least partly be

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automatically or programmatically created by the computer system based on an automatic detection of devices, programs, and/or other elements resident in the system. For example, Plug & Play software or other detection software may detect devices present in the system, their interconnections or couplings, information associated with the various devices, and programs resident in the various devices, and automatically display a portion or all of a configuration diagram. For example, the computer system may perform an automatic detection and automatically display device icons corresponding to detected devices and connections (e.g., 'connection icons' or 'wires') between respective device icons corresponding to the couplings between devices automatically detected in the system. The connections between device icons that are automatically displayed may be displayed with an appearance indicating the type of detected connection. The detection software may also automatically detect programs present in the system and display corresponding program icons. In a similar manner, software may also detect the relationship (e.g., invocation relationship) among programs resident in the various devices in the system and automatically display connections between the program icons to visually indicate the determined relationship. Detection software may also detect other elements in the system (e.g., data points, I/O channels) and display corresponding icons in the configuration diagram.

33. One skilled in the art would not have found paragraph 16 of Kodosky to teach any action that is "responsive to a detected collision" of anything whatsoever.
34. In addition, one skilled in the art would not have equated "programs" as taught by Kodosky to an "HMI screen node" in view of the definitions indicated in paragraphs 16-18.
35. The Office Action asserts, at Pages 5 and 6, that "*Leskem* disclose automatically recursively adjusting a position of a parent node with respect to its children; A recursive layout method is then applied which uses the parent-child node relationships, as such relationships exist within the tree, to spatially position the nodes

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(represented as respective icons within the map) on the display screen such that children nodes are positioned around and connected to their respective immediate parents. (This layout method can also be used to display other types of hierarchical data structures, such as the tree structure of a conventional file system.) The result is a map which comprises a hierarchical arrangement of parentchild child node (icon) clusters in which parent-child relationships are immediately apparent. Column 2, at lines 35-46. It is important to note that, "...This process is repeated for each parent node..." (Column 13, at lines 44-45) as it 'recursively positions the nodes on the display screen' (Column 13, at lines 65-67)."

36. One skilled in the art would find the statements of the Office Action recited in paragraph 35 factually incorrect as of 23 September 2002.
37. One skilled in the art would have found that, regarding the disclosed "nodes", Leshem states, at col. 2, lines 30-35, "[t]o generate the site map, a structural representation of the Web site (specifying the actual arrangement of content objects and links) is initially reduced, for purposes of generating the site map, to a hierarchical tree representation in which each content object of the Web site is represented as a node of the tree."
38. One skilled in the art would not have equated an "HMI screen node" to a "content object" of a "Web site" in view of the definitions indicated in paragraphs 16-18.
39. Thus, one skilled in the art would not have found that the applied portions of the relied-upon references teach, "responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjusting a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node" as claimed in each of claims 1 and 33.

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40. One skilled in the art would not have found that the applied portions of the relied-upon references teach, "an HMI screen navigation editor operatively adapted to: responsive to a detected collision between a parent node of said linked hierarchically organized plurality of HMI screen nodes and a first child node of a plurality of child nodes of said parent node, automatically recursively adjust a position of said parent node until an adjusted position of said parent node does not create, with respect to each child node of said plurality of child nodes, a determined collision with said child node, said determined collision determined based upon said adjusted position of said parent node and a calculated position of said child node" as claimed in claim 34.

I further declare that all statements made herein of my own knowledge are true and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 30th day of October 2007


Colleen Guy